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CTF-066974

COMPONENT RELIABILITY ASSESSMENT

WEAPON SYSTEM: W31-2,3

COMPONENT: 1E26 Detonators

FAILURE EVENT: J_9 -- Failure of the 1E26 Det system to provide proper initiation, given proper firing set output.

ASSESSMENT VALUE: $J_9 = 0.0007$

ASSESSMENT DATE: March 1988

ASSESSMENT RATIONALE:

Through Cycle 23, a total of 2802 units have been inspected for radiographic opacity on or near the bridgewires ("clouds") or for solder mounds which have been determined to be the cause for the two reported failures. The number of dets having "clouds" have diminished with each stockpile sample since about 1980. Based on 2/2802, the probability of a det failure is assessed to be 0.0007.

066974

COMPONENT RELIABILITY ASSESSMENT

WEAPON SYSTEM: W31-3

COMPONENT: Diode

FAILURE EVENT: J_{1C} -- Diode short.

ASSESSMENT VALUE: J_{1C} = 0.00001

ASSESSMENT DATE: March 1988

ASSESSMENT RATIONALE:

Data available for all diodes indicate zero failures in 203133 components. These data support a failure probability of 0.000005. These same data represent 1,929,257 part years with out a failure. The assessed probability of diode short for 20 years is 0.00001.